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**Filing Category: ROOF, WALL AND FLOOR PANELS—Sandwich Panels**

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**INSULSPAN STRUCTURAL INSULATED PANELS**

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**EXTREME PANEL TECHNOLOGIES**  
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**1.0 SUBJECT**

Insulspan Structural Insulated Panels.

**2.0 DESCRIPTION****2.1 General:**

The Insulspan Structural Insulated Panels are structural oriented strand board (OSB) faced sandwich panels that are used as components in roof and wall assemblies under the *Uniform Building Code*™ (UBC). The sandwich panels are factory-constructed with OSB exterior and interior skins with an expanded polystyrene foam core. Spline studs are factory-installed on one side of each panel in order to join the panels. When additional capacity is needed, an additional spline stud is incorporated in the interior of a panel or the spline stud at one side is doubled.

**2.2 Materials:**

**2.2.1 Foam Core:** The foam core is polystyrene, expanded from BASF beads (ER-3401) or NOVA Chemical Company beads (ER-5770, M77), by board manufacturers whose quality control programs are under the supervision of an ICBO ES accredited quality control agency. Nominal density is 1 pcf. The panels are available in insulation thicknesses of 3½ and 5½ inches. The foam plastic core has a flame-spread rating of not more than 75 and a smoke-developed rating of not more than 450 when tested in accordance with UBC Standard 8-1 in a thickness of 5⅝ inches.

**2.2.2 OSB Skins:** The OSB skins are APA or TECO rated sheathing, Exposure 1, ⅜ inch thick (24/0) or ⅞ inch thick (24/16), conforming to UBC Standard 23-3 (U.S. DOC PS-

2). Skins are one-piece for the full length of the panels (no joints in the skins). Maximum skin size is 8 feet by 24 feet.

**2.2.3 Spline Studs:** The spline studs are No. 2 or better southern pine sawn lumber, No. 2 or better spruce-pine-fir sawn lumber, or 1¾-inch-thick 2.0E DF Microllam LVL (ER-4979).

**2.2.4 Adhesive:** Qualified adhesives are used to bond the OSB skins to the foam core and are identified in the manufacturer's quality control manual.

**2.2.5 Nails:** In addition to adhesive, nails are used to attach OSB skins to the splines. Such nails are 6d common nails meeting Federal Specification FF-N-105B, and have a minimum  $F_{yb}$  of 100,000 psi.

Standard panels are 4 feet or 8 feet in width and vary in height up to 24 feet. The standard panels are illustrated in Figure 1.

Openings (headers and supporting framing) are accomplished by conventional framing methods and are not evaluated in this report.

Allowable loads for the panels are set forth in Tables 1-5.

**2.3 Installation:**

When required by the building official, each structure built using Insulspan Structural Insulated Panels shall be designed by a registered architect or engineer; and drawings must be provided which bear their registered stamp or seal when application is made for a building permit. Such drawings shall contain specific instructions with regard to connections, erection, and installation of the panels. The drawings shall be available at all times on the jobsite during installation.

**2.4 Identification:**

All Insulspan Structural Insulated Panels are identified by a stamp indicating the panel type; the evaluation report number (ICBO ES ER-5659 or NER-520); the Insulspan, Inc., name and/or trademark; and the PFS Corporation logo and ICBO ES listing number (AA-652).

**3.0 EVIDENCE SUBMITTED**

Data in accordance with the ICBO ES Acceptance Criteria for Sandwich Panels (AC04), dated July 1996; and a quality control manual.

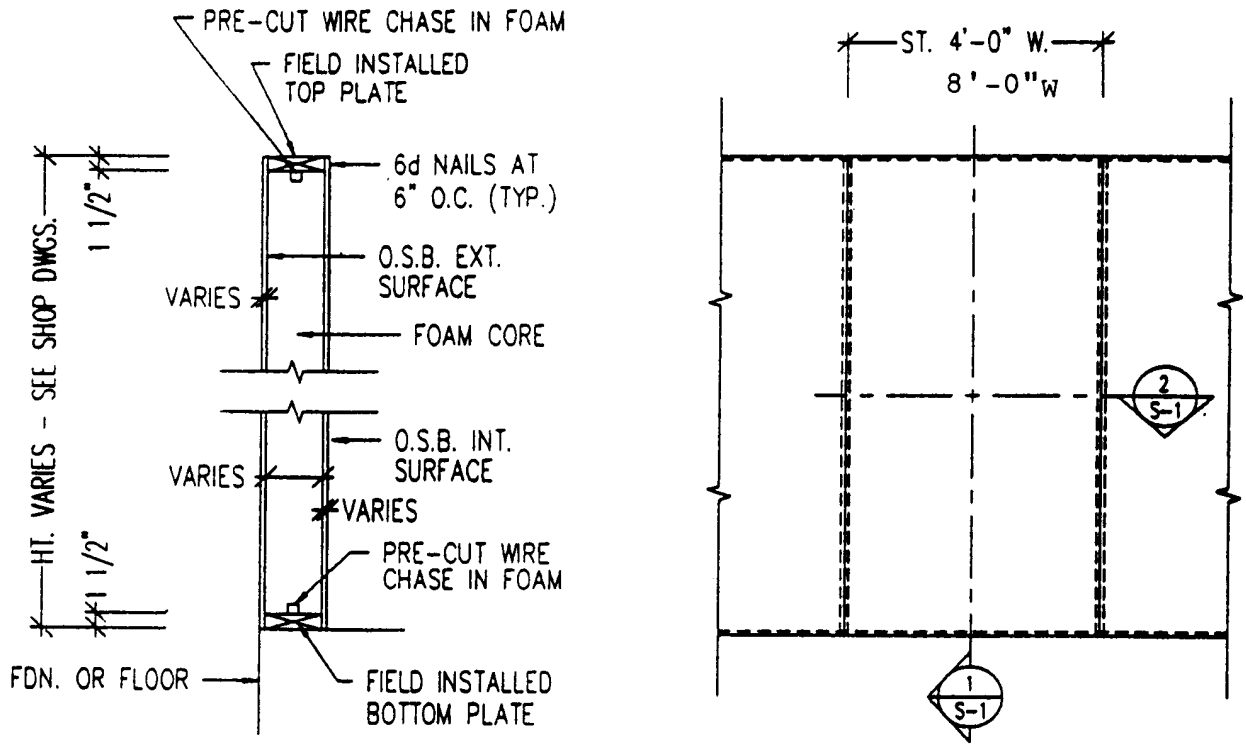
**4.0 FINDINGS**

**That the Insulspan Structural Insulated Panels described in this report comply with the 1994 Uniform Building Code™ (UBC), subject to the following conditions:**

ES REPORTS™ are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICBO Evaluation Service, Inc., express or implied, as to any finding or other matter in this report, or as to any product covered by the report.

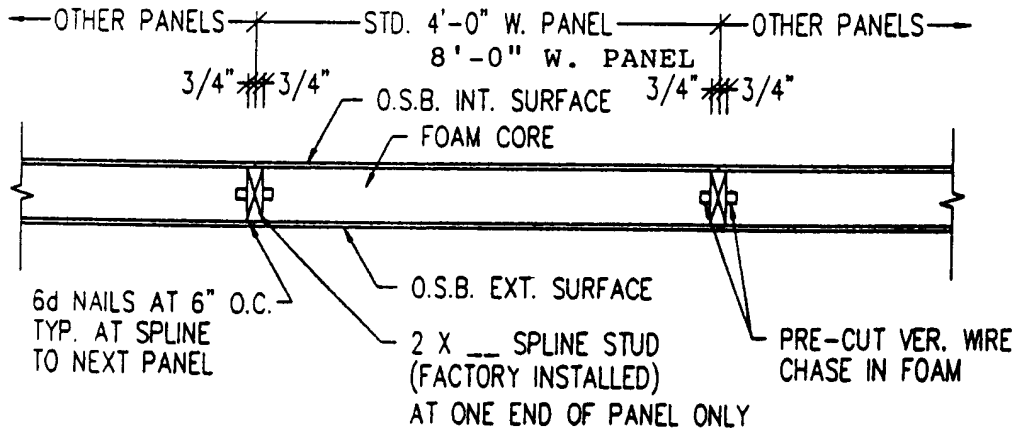


- 4.1 The Insulspan Structural Insulated Panels are fabricated and erected in accordance with this report. Design loads shall be determined in accordance with the UBC, and loadings on the panels shall not exceed the allowable loads noted in the allowable load tables in this report. Additionally, for plastered ceilings, the live load deflection shall be limited to  $1/360$  of the span.
- 4.2 All permit applications for buildings using Insulspan Structural Insulated Panels shall be accompanied by plans and structural calculations. When required by the building official, such documents shall be signed and sealed by a registered architect or professional engineer qualified to perform such work.
- 4.3 The exterior of the wall panels and roof panels shall be covered, respectively, with an approved exterior wall covering or an approved roof covering.
- 4.4 The scope of this report is limited to an evaluation of the structural capacity of the panels. Panel connections and other issues concerning the panels' incorporation into the structural system of a building are not within the scope of this report.
- 4.5 The panel core is separated from the interior of the building by an approved 15-minute thermal barrier installed as prescribed in the UBC.
- 4.6 The use of the panels is limited to buildings where combustible construction is permitted by the UBC. This report does not include an evaluation of panels for use in applications where fire-resistance rating is required by the UBC.
- 4.7 This report does not include an evaluation of panels whose components are preservative-treated or fire-retardant-treated wood.
- 4.8 No cutting or routing of the panels is permitted except as shown on approved drawings.
- 4.9 The foam plastic core is manufactured from beads indicated in Section 2.2.1 of this report, with no additional additives applied by the block molder.
- This report is subject to re-examination in one year.



1 VERTICAL SECTION

ELEVATION VIEW



2 HORIZONTAL SECTION

### STANDARD WALL PANEL AND DETAILS

FIGURE 1

TABLE 1—ALLOWABLE SPANS FOR TRANSVERSE LOADS IN INSULSPAN PANELS

MAXIMUM ALLOWABLE RACKING LOAD

ALLOWABLE RACKING LOAD (for panels with wood splines only)	208 PLF
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MAXIMUM ALLOWABLE SPANS FOR TRANSVERSE LOADS

TOTAL LOAD (DEAD + LIVE) 20 PSF	SKIN THICKNESS = 7/16 INCHES DEFLECTION CRITERION				SKIN THICKNESS = 3/8 INCHES DEFLECTION CRITERION			
	L/360		L/240		L/360		L/240	
	4-3/8"	6-3/8"	4-3/8"	6-3/8"	4-3/8"	6-3/8"	4-3/8"	6-3/8"
Panel Thickness	4-3/8"	6-3/8"	4-3/8"	6-3/8"	4-3/8"	6-3/8"	4-3/8"	6-3/8"
NO SPLINE	9'	13'	11'	14'	9'	13'	10'	13'
SINGLE SPLINE								
SPF #2	10'	15'	12'	16'	9'	14'	12'	16'
SYP #2	12'	18'	12'	19'	12'	18'	12'	18'
LVL	13'	18'	16'	20'	14'	18'	15'	19'
DOUBLE SPLINE								
SPF #2	13'	18'	15'	20'	13'	18'	15'	19'
SYP #2	14'	18'	16'	21'	14'	19'	15'	19'
LVL	14'	19'	16'	21'	14'	19'	15'	20'

TOTAL LOAD (DEAD + LIVE) 30 PSF	SKIN THICKNESS = 7/16 INCHES DEFLECTION CRITERION				SKIN THICKNESS = 3/8 INCHES DEFLECTION CRITERION			
	L/360		L/240		L/360		L/240	
	4-3/8"	6-3/8"	4-3/8"	6-3/8"	4-3/8"	6-3/8"	4-3/8"	6-3/8"
Panel Thickness	4-3/8"	6-3/8"	4-3/8"	6-3/8"	4-3/8"	6-3/8"	4-3/8"	6-3/8"
NO SPLINE	7'	10'	9'	11'	7'	10'	8'	10'
SINGLE SPLINE								
SPF #2	7'	10'	9'	13'	7'	10'	9'	13'
SYP #2	8'	12'	9'	13'	8'	12'	9'	13'
LVL	12'	16'	13'	17'	12'	15'	12'	15'
DOUBLE SPLINE								
SPF #2	11'	15'	13'	17'	11'	15'	12'	15'
SYP #2	12'	16'	13'	17'	12'	16'	12'	16'
LVL	12'	16'	13'	17'	12'	16'	12'	16'

TOTAL LOAD (DEAD + LIVE) 40 PSF	SKIN THICKNESS = 7/16 INCHES DEFLECTION CRITERION				SKIN THICKNESS = 3/8 INCHES DEFLECTION CRITERION			
	L/360		L/240		L/360		L/240	
	4-3/8"	6-3/8"	4-3/8"	6-3/8"	4-3/8"	6-3/8"	4-3/8"	6-3/8"
Panel Thickness	4-3/8"	6-3/8"	4-3/8"	6-3/8"	4-3/8"	6-3/8"	4-3/8"	6-3/8"
NO SPLINE	6'	8'	8'	10'	6'	8'	7'	9'
SINGLE SPLINE								
SPF #2	6'	8'	8'	11'	6'	8'	8'	11'
SYP #2	6'	9'	8'	11'	6'	9'	8'	11'
LVL	9'	14'	9'	14'	9'	13'	9'	13'
DOUBLE SPLINE								
SPF #2	9'	14'	9'	14'	9'	13'	9'	13'
SYP #2	10'	14'	10'	15'	10'	14'	10'	14'
LVL	10'	15'	10'	15'	10'	14'	10'	14'

TOTAL LOAD (DEAD + LIVE) 50 PSF	SKIN THICKNESS = 7/16 INCHES DEFLECTION CRITERION				SKIN THICKNESS = 3/8 INCHES DEFLECTION CRITERION			
	L/360		L/240		L/360		L/240	
	4-3/8"	6-3/8"	4-3/8"	6-3/8"	4-3/8"	6-3/8"	4-3/8"	6-3/8"
Panel Thickness	4-3/8"	6-3/8"	4-3/8"	6-3/8"	4-3/8"	6-3/8"	4-3/8"	6-3/8"
NO SPLINE	5'	7'	7'	9'	5'	7'	6'	8'
SINGLE SPLINE								
SPF #2	5'	7'	7'	9'	5'	7'	6'	9'
SYP #2	5'	7'	7'	9'	5'	7'	6'	9'
LVL	7'	12'	7'	12'	7'	12'	7'	12'
DOUBLE SPLINE								
SPF #2	7'	11'	7'	11'	7'	11'	7'	11'
SYP #2	8'	13'	8'	13'	8'	12'	8'	12'
LVL	8'	13'	8'	13'	8'	12'	8'	12'

SEE NOTES FOLLOWING TABLE 5.

TABLE 2—ALLOWABLE WALL HEIGHTS FOR INSULSPAN PANELS—4<sup>3</sup>/<sub>8</sub> INCHES

MAXIMUM ALLOWABLE HEIGHTS FOR AXIAL LOADS

SKIN THICKNESS = 7/16 IN.  
 PANEL THICKNESS 4-3/8 IN.

AXIAL LOAD (NON-BEARING) 0 PLF		ECCENTRICITY = 0 IN.					ECCENTRICITY = 2-3/16 INCHES				
		WIND PRESSURE (PSF)					WIND PRESSURE (PSF)				
		10	15	20	25	30	10	15	20	25	30
NO SPLINE		17'	14'	12'	10'	9'	17'	14'	12'	10'	9'
SINGLE SPLINE											
	SPF #2	20'	14'	12'	10'	9'	20'	14'	12'	10'	9'
	SYP #2	20'	17'	12'	10'	9'	20'	17'	12'	10'	9'
	LVL	20'	17'	16'	14'	13'	20'	17'	16'	14'	13'
DOUBLE SPLINE											
	SPF #2	20'	17'	15'	14'	13'	20'	17'	15'	14'	13'
	SYP #2	20'	17'	16'	14'	13'	20'	17'	16'	14'	13'
	LVL	20'	18'	16'	15'	13'	20'	18'	16'	15'	13'

AXIAL LOAD 1000 PLF		ECCENTRICITY = 0 IN.					ECCENTRICITY = 2-3/16 INCHES				
		WIND PRESSURE (PSF)					WIND PRESSURE (PSF)				
		10	15	20	25	30	10	15	20	25	30
NO SPLINE		15'	13'	11'	10'	9'	15'	13'	11'	10'	9'
SINGLE SPLINE											
	SPF #2	18'	14'	12'	10'	9'	18'	14'	12'	10'	9'
	SYP #2	19'	16'	12'	10'	9'	19'	16'	12'	10'	9'
	LVL	19'	17'	15'	14'	13'	19'	17'	15'	13'	12'
DOUBLE SPLINE											
	SPF #2	19'	17'	15'	14'	13'	19'	17'	15'	13'	12'
	SYP #2	19'	17'	15'	14'	13'	19'	17'	15'	14'	13'
	LVL	20'	17'	16'	15'	13'	20'	17'	15'	14'	13'

AXIAL LOAD 2000 PLF		ECCENTRICITY = 0 IN.					ECCENTRICITY = 2-3/16 INCHES				
		WIND PRESSURE (PSF)					WIND PRESSURE (PSF)				
		10	15	20	25	30	10	15	20	25	30
NO SPLINE		14'	12'	10'	9'	8'	9'	8'	7'	6'	6'
SINGLE SPLINE											
	SPF #2	17'	14'	12'	10'	9'	12'	10'	9'	8'	8'
	SYP #2	18'	16'	12'	10'	9'	12'	11'	9'	8'	8'
	LVL	18'	16'	14'	13'	12'	13'	11'	10'	9'	8'
DOUBLE SPLINE											
	SPF #2	18'	16'	15'	13'	12'	13'	11'	10'	9'	8'
	SYP #2	18'	16'	15'	13'	12'	13'	11'	10'	9'	8'
	LVL	19'	17'	15'	14'	13'	14'	12'	10'	9'	9'

AXIAL LOAD 3000 PLF		ECCENTRICITY = 0 IN.					ECCENTRICITY = 2-3/16 INCHES				
		WIND PRESSURE (PSF)					WIND PRESSURE (PSF)				
		10	15	20	25	30	10	15	20	25	30
NO SPLINE		13'	11'	9'	8'	7'	—	—	—	—	—
SINGLE SPLINE											
	SPF #2	16'	14'	12'	10'	9'	—	—	—	—	—
	SYP #2	16'	14'	12'	10'	9'	—	—	—	—	—
	LVL	16'	14'	12'	11'	10'	—	—	—	—	—
DOUBLE SPLINE											
	SPF #2	16'	14'	12'	11'	10'	—	—	—	—	—
	SYP #2	17'	14'	13'	12'	11'	—	—	—	—	—
	LVL	17'	15'	13'	12'	11'	—	—	—	—	—

SEE NOTES FOLLOWING TABLE 5.

TABLE 3—ALLOWABLE WALL HEIGHTS FOR INSULSPAN PANELS—6<sup>3</sup>/<sub>8</sub> INCHES THICK

MAXIMUM ALLOWABLE HEIGHTS FOR AXIAL LOADS

SKIN THICKNESS = 7/16 IN.  
 PANEL THICKNESS 6-3/8 IN.

AXIAL LOAD (NON-BEARING) 0 PLF		ECCENTRICITY = 0 IN.					ECCENTRICITY = 3-3/16 INCHES				
		WIND PRESSURE (PSF)					WIND PRESSURE (PSF)				
		10	15	20	25	30	10	15	20	25	30
NO SPLINE		23'	19'	16'	14'	13'	23'	19'	16'	14'	13'
SINGLE SPLINE											
	SPF #2	26'	20'	16'	14'	13'	26'	20'	16'	14'	13'
	SYP #2	27'	23'	19'	15'	13'	27'	23'	19'	15'	13'
	LVL	27'	23'	20'	18'	17'	27'	23'	20'	18'	17'
DOUBLE SPLINE											
	SPF #2	27'	23'	20'	18'	17'	27'	23'	20'	18'	17'
	SYP #2	27'	24'	21'	19'	17'	27'	24'	21'	19'	17'
	LVL	28'	24'	21'	19'	17'	28'	24'	21'	19'	17'

AXIAL LOAD 1000 PLF		ECCENTRICITY = 0 IN.					ECCENTRICITY = 3-3/16 INCHES				
		WIND PRESSURE (PSF)					WIND PRESSURE (PSF)				
		10	15	20	25	30	10	15	20	25	30
NO SPLINE		21'	18'	15'	14'	12'	21'	18'	15'	14'	12'
SINGLE SPLINE											
	SPF #2	25'	20'	16'	14'	13'	25'	20'	16'	14'	13'
	SYP #2	26'	22'	19'	15'	13'	26'	22'	19'	15'	13'
	LVL	26'	23'	20'	18'	17'	26'	22'	20'	18'	16'
DOUBLE SPLINE											
	SPF #2	26'	23'	20'	18'	17'	26'	23'	20'	18'	16'
	SYP #2	27'	23'	21'	19'	17'	27'	23'	20'	18'	17'
	LVL	27'	24'	21'	19'	17'	27'	24'	21'	19'	17'

AXIAL LOAD 2000 PLF		ECCENTRICITY = 0 IN.					ECCENTRICITY = 3-3/16 INCHES				
		WIND PRESSURE (PSF)					WIND PRESSURE (PSF)				
		10	15	20	25	30	10	15	20	25	30
NO SPLINE		20'	17'	15'	13'	12'	14'	12'	11'	9'	9'
SINGLE SPLINE											
	SPF #2	24'	20'	16'	14'	13'	17'	15'	13'	12'	11'
	SYP #2	25'	22'	19'	15'	13'	18'	15'	13'	12'	11'
	LVL	25'	22'	19'	17'	16'	18'	15'	14'	12'	11'
DOUBLE SPLINE											
	SPF #2	25'	22'	19'	17'	16'	18'	16'	14'	12'	11'
	SYP #2	26'	23'	20'	18'	16'	19'	16'	15'	13'	12'
	LVL	26'	23'	20'	18'	17'	20'	17'	15'	14'	13'

AXIAL LOAD 3000 PLF		ECCENTRICITY = 0 IN.					ECCENTRICITY = 3-3/16 INCHES				
		WIND PRESSURE (PSF)					WIND PRESSURE (PSF)				
		10	15	20	25	30	10	15	20	25	30
NO SPLINE		19'	16'	14'	12'	11'	—	—	—	—	—
SINGLE SPLINE											
	SPF #2	21'	18'	16'	14'	13'	—	—	—	—	—
	SYP #2	22'	19'	16'	15'	13'	—	—	—	—	—
	LVL	22'	19'	17'	15'	14'	5'	4'	—	—	—
DOUBLE SPLINE											
	SPF #2	22'	19'	17'	15'	14'	5'	4'	4'	—	—
	SYP #2	23'	19'	17'	16'	14'	7'	6'	5'	5'	5'
	LVL	23'	20'	18'	16'	15'	9'	7'	6'	6'	5'

SEE NOTES FOLLOWING TABLE 5.

TABLE 4—ALLOWABLE WALL HEIGHTS FOR INSULSPAN PANELS—4 1/4 INCHES THICK

MAXIMUM ALLOWABLE HEIGHTS FOR AXIAL LOADS

SKIN THICKNESS = 3/8 IN.  
 PANEL THICKNESS 4-1/4 IN.

AXIAL LOAD (NON-BEARING) 0 PLF		ECCENTRICITY = 0 IN.					ECCENTRICITY = 2-1/8 INCHES				
		WIND PRESSURE (PSF)					WIND PRESSURE (PSF)				
		10	15	20	25	30	10	15	20	25	30
NO SPLINE		17'	14'	12'	10'	9'	17'	14'	12'	10'	9'
SINGLE SPLINE											
	SPF #2	19'	14'	12'	10'	9'	19'	14'	12'	10'	9'
	SYP #2	20'	16'	12'	10'	9'	20'	16'	12'	10'	9'
	LVL	20'	17'	15'	13'	12'	20'	17'	15'	13'	12'
DOUBLE SPLINE											
	SPF #2	20'	17'	15'	13'	12'	20'	17'	15'	13'	12'
	SYP #2	20'	17'	15'	13'	12'	20'	17'	15'	13'	12'
	LVL	21'	17'	15'	13'	12'	21'	17'	15'	13'	12'

AXIAL LOAD 1000 PLF		ECCENTRICITY = 0 IN.					ECCENTRICITY = 2-1/8 INCHES				
		WIND PRESSURE (PSF)					WIND PRESSURE (PSF)				
		10	15	20	25	30	10	15	20	25	30
NO SPLINE		15'	13'	11'	10'	9'	15'	13'	11'	10'	9'
SINGLE SPLINE											
	SPF #2	19'	14'	12'	10'	9'	18'	14'	12'	10'	9'
	SYP #2	19'	16'	12'	10'	9'	18'	15'	12'	10'	9'
	LVL	19'	17'	15'	13'	12'	18'	15'	14'	12'	11'
DOUBLE SPLINE											
	SPF #2	19'	17'	15'	13'	12'	19'	16'	14'	12'	11'
	SYP #2	19'	17'	15'	13'	12'	19'	16'	14'	13'	12'
	LVL	20'	17'	15'	13'	12'	19'	16'	14'	13'	12'

AXIAL LOAD 2000 PLF		ECCENTRICITY = 0 IN.					ECCENTRICITY = 2-1/8 INCHES				
		WIND PRESSURE (PSF)					WIND PRESSURE (PSF)				
		10	15	20	25	30	10	15	20	25	30
NO SPLINE		14'	12'	10'	9'	8'	7'	6'	6'	5'	4'
SINGLE SPLINE											
	SPF #2	18'	14'	12'	10'	9'	10'	8'	7'	7'	6'
	SYP #2	18'	15'	12'	10'	9'	10'	9'	8'	7'	6'
	LVL	18'	15'	13'	12'	11'	11'	9'	8'	7'	7'
DOUBLE SPLINE											
	SPF #2	18'	15'	13'	12'	11'	11'	9'	8'	7'	7'
	SYP #2	18'	16'	14'	12'	11'	11'	10'	8'	8'	7'
	LVL	19'	16'	14'	13'	12'	12'	10'	9'	8'	7'

AXIAL LOAD 3000 PLF		ECCENTRICITY = 0 IN.					ECCENTRICITY = 2-1/8 INCHES				
		WIND PRESSURE (PSF)					WIND PRESSURE (PSF)				
		10	15	20	25	30	10	15	20	25	30
NO SPLINE		13'	11'	9'	8'	7'	—	—	—	—	—
SINGLE SPLINE											
	SPF #2	15'	12'	13'	10'	9'	—	—	—	—	—
	SYP #2	15'	13'	11'	10'	9'	—	—	—	—	—
	LVL	15'	13'	11'	10'	9'	—	—	—	—	—
DOUBLE SPLINE											
	SPF #2	15'	13'	11'	10'	9'	—	—	—	—	—
	SYP #2	15'	13'	11'	10'	10'	—	—	—	—	—
	LVL	16'	13'	12'	11'	10'	—	—	—	—	—

SEE NOTES FOLLOWING TABLE 5.

TABLE 5—ALLOWABLE WALL HEIGHTS FOR INSULSPAN PANELS—6 1/4 INCHES THICK

MAXIMUM ALLOWABLE HEIGHTS FOR AXIAL LOADS

SKIN THICKNESS = 3/8 IN.  
 PANEL THICKNESS 6-1/4 IN.

AXIAL LOAD (NON-BEARING) 0 PLF						ECCENTRICITY = 3-1/8 INCHES				
ECCENTRICITY = 0 IN.						ECCENTRICITY = 3-1/8 INCHES				
WIND PRESSURE (PSF)						WIND PRESSURE (PSF)				
	10	15	20	25	30	10	15	20	25	30
NO SPLINE	23'	19'	16'	15'	13'	23'	19'	16'	15'	13'
SINGLE SPLINE										
SPF #2	26'	19'	16'	15'	13'	26'	19'	16'	15'	13'
SYP #2	26'	21'	18'	15'	13'	26'	21'	18'	15'	13'
LVL	27'	22'	19'	17'	15'	27'	22'	19'	17'	15'
DOUBLE SPLINE										
SPF #2	27'	22'	19'	17'	15'	27'	22'	19'	17'	15'
SYP #2	28'	22'	19'	17'	16'	28'	22'	19'	17'	16'
LVL	28'	23'	20'	18'	16'	28'	23'	20'	18'	16'

AXIAL LOAD 1000 PLF						ECCENTRICITY = 3-1/8 INCHES				
ECCENTRICITY = 0 IN.						ECCENTRICITY = 3-1/8 INCHES				
WIND PRESSURE (PSF)						WIND PRESSURE (PSF)				
	10	15	20	25	30	10	15	20	25	30
NO SPLINE	21'	18'	16'	14'	12'	21'	18'	16'	14'	12'
SINGLE SPLINE										
SPF #2	25'	19'	16'	15'	13'	24'	19'	16'	15'	13'
SYP #2	26'	21'	18'	15'	13'	24'	20'	18'	15'	13'
LVL	26'	22'	19'	17'	15'	25'	21'	18'	16'	15'
DOUBLE SPLINE										
SPF #2	26'	22'	19'	17'	15'	25'	21'	18'	16'	15'
SYP #2	27'	22'	19'	17'	16'	26'	22'	19'	17'	15'
LVL	27'	23'	20'	18'	16'	27'	22'	19'	17'	16'

AXIAL LOAD 2000 PLF						ECCENTRICITY = 3-1/8 INCHES				
ECCENTRICITY = 0 IN.						ECCENTRICITY = 3-1/8 INCHES				
WIND PRESSURE (PSF)						WIND PRESSURE (PSF)				
	10	15	20	25	30	10	15	20	25	30
NO SPLINE	20'	17'	15'	13'	12'	12'	10'	9'	8'	7'
SINGLE SPLINE										
SPF #2	23'	19'	16'	15'	13'	15'	12'	11'	10'	9'
SYP #2	24'	20'	18'	15'	13'	15'	13'	11'	10'	9'
LVL	24'	20'	18'	16'	15'	16'	13'	11'	10'	9'
DOUBLE SPLINE										
SPF #2	24'	20'	18'	16'	15'	16'	13'	12'	10'	10'
SYP #2	25'	21'	18'	17'	15'	17'	14'	12'	11'	10'
LVL	25'	21'	19'	17'	15'	17'	15'	13'	12'	11'

AXIAL LOAD 3000 PLF						ECCENTRICITY = 3-1/8 INCHES				
ECCENTRICITY = 0 IN.						ECCENTRICITY = 3-1/8 INCHES				
WIND PRESSURE (PSF)						WIND PRESSURE (PSF)				
	10	15	20	25	30	10	15	20	25	30
NO SPLINE	18'	15'	13'	12'	11'	—	—	—	—	—
SINGLE SPLINE										
SPF #2	20'	16'	14'	13'	12'	—	—	—	—	—
SYP #2	20'	17'	15'	13'	12'	—	—	—	—	—
LVL	20'	17'	15'	13'	12'	—	—	—	—	—
DOUBLE SPLINE										
SPF #2	20'	17'	15'	14'	12'	—	—	—	—	—
SYP #2	21'	18'	15'	14'	13'	—	—	—	—	—
LVL	21'	18'	16'	14'	13'	—	—	—	—	—

SEE NOTES FOLLOWING THIS TABLE.

# INSULSPAN

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## Notes for Racking Load Table

Panels shall be made of two equal layers of APA or TECO rated sheathing, either OSB or 5-ply plywood. The core shall be nominal 1.0 pcf density (min. 0.9 pcf) EPS (expanded polystyrene) foam adhered to the sheathing with glue and set under pressure. Panels used to resist racking shear shall have solid wood or LVL splines at all edges and at top and bottom. The splines shall be nailed to the skins with 6d nails @ 6 inches o.c. at both sides.

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## Notes for Transverse Loads Tables

Panels shall be made of two equal layers of APA or TECO rated sheathing, either OSB or 5-ply plywood. The core shall be nominal 1.0 pcf density (min. 0.9 pcf) EPS (expanded polystyrene) foam adhered to the sheathing with glue and set under pressure. In panels with splines the splines shall be nailed to the skin with 6d nails @ 6 inches o.c.

1. Values shown are allowable spans due to dead load plus live load.
2. The tables reflect two deflection criteria. For all panels the deflection criteria of  $L/360$  shall be used for floor loads. For roof panels with slopes less than 3 in 12 pitch, the  $L/360$  deflection criterion shall be used. For roof panels with slopes of 3 in 12 or greater, the deflection criterion of  $L/240$  shall be acceptable.
3. To minimize deflection creep on panels without splines loaded with permanent or long-duration loads (> 6 mo.), find the allowable span on the table for twice the actual load (i.e. use 40 psf for actual load of 20 psf.)
4. Some allowable spans are not based on deflections, therefore no multipliers for other deflection criteria shall be allowed.
5. All values are for normal duration loads. No increases for other durations are allowed.
6. Maximum spans are limited to the maximum panel size, 28 feet.
7. All values listed are for single-span panels with supports at each end.
8. For eight foot wide panels with splines at 8'-0" o.c., use table values for sandwich panels without splines; for panels with splines at 4'-0" o.c., use tables for single splines.
9. All values are based on INSULSPAN -Transverse Load Tables (T.1-T.20), "© INSULSPAN 1992", dated 6/20/96.

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## Notes for Axial Load Tables

Panels shall be made of two equal layers of APA or TECO rated sheathing, either OSB or 5-ply plywood. The core shall be nominal 1.0 pcf density (min. 0.9 pcf) EPS (expanded polystyrene) foam adhered to the sheathing with glue and set under pressure. In panels with splines the splines shall be nailed to the skin with 6d nails @ 6 inches o.c.

1. Values shown are allowable heights due to dead load plus live load.
2. Allowable loads are based on axial loads being applied over the entire panel thickness.
3. A deflection criterion of  $H/240$  is used.
4. Some allowable spans are not based on deflections, therefore no multipliers for other deflection criteria shall be allowed.
5. All values are for normal duration loads. No increases for other durations are allowed.
6. Maximum spans are limited to the maximum panel size, 28'
7. All values listed are for single-span panels with supports at the top and bottom.
8. Where no allowable height is shown, panel does not meet criteria to carry applied axial load.
9. For panels with splines at 24" o.c. use the allowable heights of panels with double splines.
10. For eight foot wide panels with splines at 8'-0" o.c., use table values for sandwich panels without splines; for panels with splines at 4'-0" o.c., use tables for single splines.
11. All values are based on INSULSPAN -Axial Load Tables (A.1-A.200), "© INSULSPAN 1992", dated 6/20/96 or 6/21/96.